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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,561	09/27/2001	Atsunari Tsuda	110373	2259
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OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER ABDULSELAM, ABBAS I	
			ART UNIT 2677	PAPER NUMBER

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/937,561

Applicant(s)

TSUDA, ATSUNARI

Examiner

Abbas I. Abdulsalam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This office action is in response to a communication filed on 08/04/05. Claims 1-14 are pending. Claims 1-14 are pending.

#### ***Response to Arguments***

2. Applicant's arguments, (see pages 1-3), filed 08/04/05 with respect to the rejection(s) of claim(s) 1-14 under U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Keijiro (Japanese publication # 07-175429) and Tatsuhiko (Japanese Publication # 0995532).

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keijiro (Japanese publication # 07-175429) in view of Tatsuhiko (Japanese Publication # 0995532).

Regarding claim 1, Keijiro teaches an electro-optical apparatus comprising: a display panel including a plurality of pixels in a display area and in a peripheral region around the display area, and a driver that drives driving each of the pixels of said display panel based on a display signal which is externally supplied (Fig. 1 (4, 40, 50), and under "DETAILED

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DESCRIPTION”, page 2, the whole third and fourth paragraphs) a timing detection device that detects timing to drive the pixels in the peripheral region of said display panel (Fig. 2 (71), and under “DETAILED DESCRIPTION”, the whole third and fourth paragraphs) ; and a display controller that outputs a signal to said driver at the timing detected by said timing detection device (Fig. 1 (18), Fig. 2 (61, 63, 65, 67), and under “DETAILED DESCRIPTION”, page 5, the last two lines and page 6, the whole first and second paragraphs).

Tatsuhiko does not teach to always displaying during display operation the same color at pixels in the peripheral region regardless of color indicated for the pixels in the peripheral region by the externally supplied display signal.

Tatsuhiko on the other hand teaches a light shielding part (25) driving liquid crystal in order that the inside peripheral part of the view area (23) becomes a light shielding state with a prescribed width being formed. (see the abstract and along with the associated Fig.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Keijiro’s display system shown in Fig. 1 to adapt Tatsuhiko’s light shielding part (25) along with a peripheral area (23) as illustrated in the abstract because the use of a light shielding part helps avoid leakage of light in a liquid crystal display device as taught by Tatsuhiko (see the abstract).

Regarding claim 2, Keijiro teaches an electro-optical apparatus which comprising a display panel comprising a plurality of pixels in a display area and in a peripheral region around the display area; and driver that drives each of the pixels based on display data which is externally supplied corresponding to each of the pixels of said display panel, (Fig. 1 (4, 40, 50),

and under “DETAILED DESCRIPTION”, page 2, the whole third and fourth paragraphs), a display controller that outputs to said driver mask data (Fig. 1 (18), Fig. 2 (61, 63, 65, 67), and under “DETAILED DESCRIPTION”, page 5, the last two lines and page 6, the whole first and second paragraphs).

Keijiro does not teach to display each of the pixels in the peripheral region of said display panel in the same particular color regardless of color indicated for the pixels in the peripheral region by the externally supplied display data.

Tatsuhiko on the other hand teaches a light shielding part (25) driving liquid crystal in order that the inside peripheral part of the view area (23) becomes a light shielding state with a prescribed width being formed. (See the abstract and along with the associated Fig.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Keijiro’s display system shown in Fig. 1 to adapt Tatsuhiko’s light shielding part (25) along with a peripheral area (23) as illustrated in the abstract because the use of a light shielding part helps avoid leakage of light in a liquid crystal display device as taught by Tatsuhiko (see the abstract)

Regarding claim 3, Keijiro teaches an electro-optical apparatus which comprising a display panel comprising a plurality of pixels in a display area and in a peripheral region around the display area (Fig. 1 (4, 40, 50), and under “DETAILED DESCRIPTION”, page 2, the whole third and fourth paragraphs); a memory which stores display data corresponding to each of the pixels of said display panel (Fig. 1 (25), and “DETAILED DESCRIPTION”, page 2, sixth paragraph, first sentence), a writing means device that writes to said memory display data which

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is externally supplied (under “DETAILED DESCRIPTION”, page 2, eight paragraph, write enable signal) , and a driver that drives each of said pixels based on the display data (Fig. 1 (18), Fig. 2 (61, 63, 65, 67), and under “DETAILED DESCRIPTION”, page 5, the last two lines and page 6, the whole first and second paragraphs).

Tatsuhiko does not teach to always displaying during display operation the same color at pixels in the peripheral region regardless of color indicated for the pixels in the peripheral region by the externally supplied display signal.

Tatsuhiko on the other hand teaches a light shielding part (25) driving liquid crystal in order that the inside peripheral part of the view area (23) becomes a light shielding state with a prescribed width being formed. (See the abstract and along with the associated Fig.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Keijiro’s display system shown in Fig. 1 to adapt Tatsuhiko’s light shielding part (25) along with a peripheral area (23) as illustrated in the abstract because the use of a light shielding part helps avoid leakage of light in a liquid crystal display device as taught by Tatsuhiko (see the abstract)

Regarding claim 4, Keijiro teaches an electro-optical apparatus comprising a display panel including a plurality of pixels in a display area and in a peripheral region around the display area (Fig. 1 (4, 40, 50), and under “DETAILED DESCRIPTION”, page 2, the whole third and fourth paragraphs); a memory which stores display data corresponding to each of the pixels of said display panel (Fig. 1 (25), and under “DETAILED DESCRIPTION”, page 2, sixth paragraph, first sentence), the memory including a storage area corresponding to each of the

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pixels in the peripheral region of said display panel, the storage area being stored mask data indicating the same particular color for all pixels of the peripheral region of the display panel (Fig. 2 (63, 65, 67) under “DETAILED DESCRIPTION”, page 6, second paragraph, the first six lines); a writing device that writes to said memory display data which is externally supplied (under “DETAILED DESCRIPTION”, page 2, eight paragraph, write enable signal), and a driver that drives each of said pixels based on the display data and the mask data in said memory (Fig. 1 (18), Fig. 2 (61, 63, 65, 67), and under “DETAILED DESCRIPTION”, page 5, the last two lines and page 6, the whole first and second paragraphs).

Keijiro does not teach each of the pixels in the peripheral region of the display panel being displayed in the same particular color regardless of color indicated for the pixels in the peripheral region by the externally supplied display data.

Tatsuhiko on the other hand teaches a light shielding part (25) driving liquid crystal in order that the inside peripheral part of the view area (23) becomes a light shielding state with a prescribed width being formed. (see the abstract and along with the associated Fig.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Keijiro's display system shown in Fig. 1 to adapt Tatsuhiko's light shielding part (25) along with a peripheral area (23) as illustrated in the abstract because the use of a light shielding part helps avoid leakage of light in a liquid crystal display device as taught by Tatsuhiko (see the abstract)

Regarding claim 5, Keijiro teaches each of the said pixels being formed of liquid crystal (under “DETAILED DESCRIPTION”, page 6, line 6, LCD panel).

Regarding claim 6, Keijiro teaches said particular color being white (Fig. 2 (69), and under "DETAILED DESCRIPTION", page 7, last three lines of a fourth paragraph).

Regarding claim 7, Keijiro teaches a method of driving an electro-optical apparatus which includes a display panel including a plurality of pixels, and a driver that drives each of the pixels of said display panel based on a display signal which is externally supplied (Fig. 1 (4, 40, 50), and under "DETAILED DESCRIPTION", page 2, the whole third and fourth paragraphs), the method comprising detecting timing to drive the pixels in the peripheral region of said display panel (Fig. 2 (71), and under "DETAILED DESCRIPTION", the whole third and fourth paragraphs); and outputting a signal to said driver at the selected timing (Fig. 1 (18), Fig. 2 (61, 63, 65, 67), and under "DETAILED DESCRIPTION", page 5, the last two lines and page 6, the whole first and second paragraphs).

Keijiro does not teach displaying the same color at pixels in the peripheral region regardless of color indicated for the pixels in the peripheral region by the externally supplied signal.

Tatsuhiko on the other hand teaches a light shielding part (25) driving liquid crystal in order that the inside peripheral part of the view area (23) becomes a light shielding state with a prescribed width being formed. (see the abstract and along with the associated Fig.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Keijiro's display system shown in Fig. 1 to adapt Tatsuhiko's light shielding part (25) along with a peripheral area (23) as illustrated in the abstract because the use of a light



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shielding part helps avoid leakage of light in a liquid crystal display device as taught by Tatsuhiko (see the abstract).

Regarding claim 8, Keijiro teaches a method of driving an electro-optical apparatus which includes a display panel including a plurality of pixels, and a driver that drives each of the pixels based on display data which is externally supplied corresponding to each of the pixels of said display panel (Fig. 1 (4, 40, 50), and under “DETAILED DESCRIPTION”, page 2, the whole third and fourth paragraphs), the method comprising outputting display data to said driver (Fig. 1 (18), Fig. 2 (61, 63, 65, 67), and under “DETAILED DESCRIPTION”, page 5, the last two lines and page 6, the whole first and second paragraphs).

Tatsuhiko does not teach to always displaying during display operation the same color at pixels in the peripheral region regardless of color indicated for the pixels in the peripheral region by the externally supplied display signal.

Tatsuhiko on the other hand teaches a light shielding part (25) driving liquid crystal in order that the inside peripheral part of the view area (23) becomes a light shielding state with a prescribed width being formed. (see the abstract and along with the associated Fig.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Keijiro's display system shown in Fig. 1 to adapt Tatsuhiko's light shielding part (25) along with a peripheral area (23) as illustrated in the abstract because the use of a light shielding part helps avoid leakage of light in a liquid crystal display device as taught by Tatsuhiko (see the abstract).

Regarding claim 9, Keijiro teaches a method of driving an electro-optical apparatus which includes a display panel including a plurality of pixels (Fig. 1 (4, 40, 50), and under “DETAILED DESCRIPTION”, page 2, the whole third and fourth paragraphs), a memory which stores display data corresponding to each of the pixels of said display panel (Fig. 1 (25), and under “DETAILED DESCRIPTION”, page 2, sixth paragraph, first sentence), writing device that writes to said memory display data which is externally supplied , and a driver that drives each of said pixels based on the display data in said memory (under “DETAILED DESCRIPTION”, page 2, eight paragraph, write enable signal), the method comprising: writing mask data to said memory as display data for each of the pixels in the peripheral region of said display panel (Fig. 1 (18), Fig. 2 (61, 63, 65, 67), and under “DETAILED DESCRIPTION”, page 5, the last two lines and page 6, the whole first and second paragraphs).

Keijiro does not teach displaying the same color at pixels in the peripheral region regardless of color indicated for the pixels by externally supplied display.

Tatsuhiko on the other hand teaches a light shielding part (25) driving liquid crystal in order that the inside peripheral part of the view area (23) becomes a light shielding state with a prescribed width being formed. (See the abstract and along with the associated Fig.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Keijiro’s display system shown in Fig. 1 to adapt Tatsuhiko’s light shielding part (25) along with a peripheral area (23) as illustrated in the abstract because the use of a light shielding part helps avoid leakage of light in a liquid crystal display device as taught by Tatsuhiko (see the abstract).

Regarding claim 10, Keijiro teaches said writing step including writing display data to display a particular color that is white (Fig. 2 (69), and under “DETAILED DESCRIPTION”, page 7, last three lines of a fourth paragraph).

Regarding claim 11, Keijiro teaches the display controller outputs a signal to always display during display operations the pixels in the display area in colors indicated by externally supplied display signal (Fig. 1 (19) and (Fig. 2 (69), and under “DETAILED DESCRIPTION”, page 2, third paragraph, the first three sentences).

Regarding claim 12, Keijiro teaches the display controller stops outputting display data to said driver and enables transfer of the externally supplies display data to the driver to always display during display operations each of the pixels in the display area in the color indicated by the externally supplied display data (Fig. 2 (69), and under “DETAILED DESCRIPTION”, page 6, form the middle of second paragraph).

Regarding claim 13, Keijiro teaches to the display control device writes to said memory display data to always display during display operation each of the pixels in the display area in the color indicated by the externally supplied display data (Fig. 1 (19), Fig. 2 (69), and under “DETAILED DESCRIPTION”, page 6, form the middle of second paragraph).

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Regarding claim 14, Keijiro teaches the driver drives each of said pixels so that each of the pixels in the display area is always displayed during display operations in the color indicated by the externally supplied display data (Fig. 1 (19), Fig. 2 (69), and under "DETAILED DESCRIPTION", page 6, form the middle of second paragraph).

### *Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following arts are cited for further reference.

U.S. Pat. No. 6,140,996 to Nobutani et al.

5. Any inquiry concerning this communication or earlier communications form the examiner should be directed to Abbas I Abdulsalam whose telephone number is (571) 272-7685. The examiner can normally be reached on Monday through Friday form 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained form the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained form either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Examiner

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October 29, 2005

AMR A. AWAD  
PRIMARY EXAMINER

*Amr Ahmad Awad*